

# Summary of Results from Beryllium Rule RFI

*Beryllium Health and Safety Conference  
Aberdeen, Maryland*

April, 2011



# List of Respondents

- Berylliant Inc
- B&W Pantex
- Hanford Beryllium Awareness Group
- B&W Y-12, LLC
- Alliance of Nuclear Worker Advocacy Groups (ANWAG)
- Honeywell Federal Manufacturing & Technologies, LLC
- URS Safety Management Solutions
- Oak Ridge National Laboratory
- Savannah River Nuclear Solutions
- Ames Laboratory
- Argonne National Laboratory
- Pacific Northwest National Laboratory
- Building and Construction Trades Department, AFLCIO
- Los Alamos National Laboratory
- U.S. Department of Health and Human Services
- Lawrence Livermore National Laboratory
- Idaho National Laboratory
- Battelle Energy Alliance
- Savannah River Site
- Richard L. Dickson
- CH2M Hill Plateau Remediation Company
- Tri-Valley CAREs
- CH2M Hill Washington Group (WCI)
- Idaho Cleanup Project
- Sandia National Laboratory
- Hanford Advisory Board
- UK Atomic Weapons Establishment (AWE)
- National Institute for Occupational Safety and Health
- Brush Wellman Inc.
- DOE NNSA Site Offices
- Several individuals representing themselves



# Context

- 10 CFR part 850 is under revision
- It's recognized that current CBDPP regulation can be improved
- RFI sent out for comments about wet wipe usage standards, surface action levels, and aggressive air sampling.



# Question 1

- Should the Department continue to use the OSHA PEL?
- 10 respondents said yes we should and 20 said no we should not with an additional 3 offering information on the subject but no clear answer.



# Question 2

- Should DOE use the 2010 ACGIH TLV of 0.05ug/m<sup>3</sup> (TWA) in inhalable particulate matter, for its allowable exposure limit?
- 10 respondents said yes that we should adopt the new TLV as the OEL and 23 said no with 2 additional offering information but no clear response.



# Question 3

- Should an airborne action level that is different from the 2010 ACGIH TLV be established?
- 9 respondents recommended keeping the DOE AL at 0.2 ug/m<sup>3</sup>. Others recommended 0.2ug/m<sup>3</sup> be the OEL with values of 0.025 – 0.1ug/m<sup>3</sup> as the AL. 3 supported using the TLV as the AL.



# Question 4

- Should the Department require the use of wet wipes?
- 23 supported the use of wet wipes, but the overarching message was that a standard should be developed across the sites. Dry wipes were acknowledged as still necessary for certain surfaces.
- Few responded with a flat no, but others questioned the basis for using wet vs. dry wipes, stating that there was none.



# Question 5

- How do current wipe sampling protocols aid exposure assessments and the protection of beryllium workers? How reliable and accurate are current sampling and analytical methods for beryllium wipe samples?
- The general view is that wipe sampling is effective at determining the presence of Beryllium and can be used to define contaminated spaces. They are also used effectively to verify the effectiveness of cleanup efforts. Levels of Be collected on a wipe can be accurately measured.





# Question 6

- What is the best method for sampling and analyzing inhalable beryllium?
- The IOM sampler was mentioned by several respondents along with 37mm cassettes + wall deposits. NIOSH Method 7303 (AES) and fluorescence methods also was mentioned. General consensus that there is no best method and that use of one method over another depends on the situation.



# Question 7

- How should total fraction exposure data be compared to inhalable fraction exposure measurements?
- Most respondents to this question stated that the two could not be compared and should not be compared. A few mentioned that correction factors exist but are sampler dependent.



# Question 8

- Should surface area action levels be established, what level? A low airborne action level that precludes beryllium settling out on surfaces, what level?
- Many said that surface levels were not representative of air levels and no limit should be established, others recommended that the DOE housekeeping level of 3.0 ug/100 cm<sup>2</sup> be adopted as the limit. A low airborne action level is desirable but others pointed out that regardless of the level Be would still settle out over a long enough timeframe.



# Question 9

- Should warning labels be required for the transfer, to either another DOE entity or to an entity to whom this rule does not apply, of items with surface areas that are free of removable surface levels of beryllium but which may contain surface contamination that is inaccessible?
- General consensus is that warning labels should be required but transfer of items with suspected contamination should not be transferred to an entity not covered by the rule. There is concern that including warning labels will increase false alarms.



# Question 10

- Should the Department establish both surface level and aggressive air sampling criteria for releasing areas in a facility?
- 17 respondents supported aggressive air sampling and 13 respondents supported surface sampling. Many commented that clearance through use of air sampling only would not offer enough confidence and a check using wipes should be performed. A minority view disagreed with establishment of either standard with more comments specifically against aggressive air sampling.



# Question 11

- Should the Department continue to require the worker's consent for medical removal, or require mandatory medical removal?
- Yes: 15                      No: 7
- A lot of half and half answers. Should be mandatory if worker does not waive rights to seek damages. If employees who are medically removed can be guaranteed employment for longer than 1 year then more would support mandatory removal.



# Questions ???

Full RFI comments can be accessed through the [HSS website](#) by selecting Health and Safety from the HS Program Offices drop box, then select 10 CFR 850 on the left panel and finally “View Request for Information Comments” all the way at the bottom.

Direct link:

[http://www.hss.doe.gov/healthsafety/wshp/be/docs/comments/10CFR850RFI\\_Commenters.pdf](http://www.hss.doe.gov/healthsafety/wshp/be/docs/comments/10CFR850RFI_Commenters.pdf)

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